

Appendix B Meteorological Data

This section contains meteorological data derived from various regulatory and non-regulatory sites. The data provides a comparative analysis of winds speed, wind direction, wind gusts and concentration data. Please note that meteorological instruments measure at different heights, and at different time intervals. By taking, the actual time of measurement and assuring that all data represented is in Pacific Standard Time (PST) there is uniformity of the data. In addition, not all stations measure at the exact same time, i.e. measurements at 0:53 and 0:56 therefore, comparisons are measurements within a 60-minute period. While there may be some overlapping and slight differences the comparative analysis provides the reader with a better understanding of regional effect of the Exceptional Event.

**FIGURE B-1
METEOROLOGICAL SITES IN IMPERIAL COUNTY AND NEIGHBORING LOCATIONS**



Fig B-1: Is a graphical representation of the meteorological stations utilized for the Exceptional Event

FIGURE B-2
IMPERIAL COUNTY AIRPORT (KIPL)
WIND SPEED, GUSTS & DIRECTION

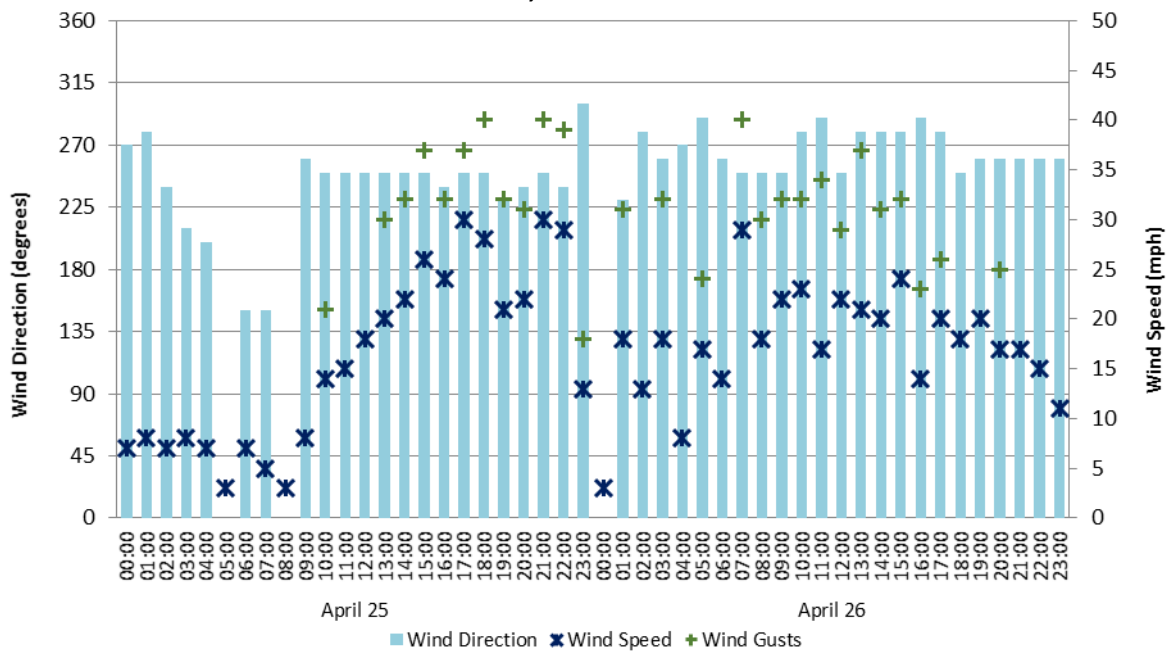
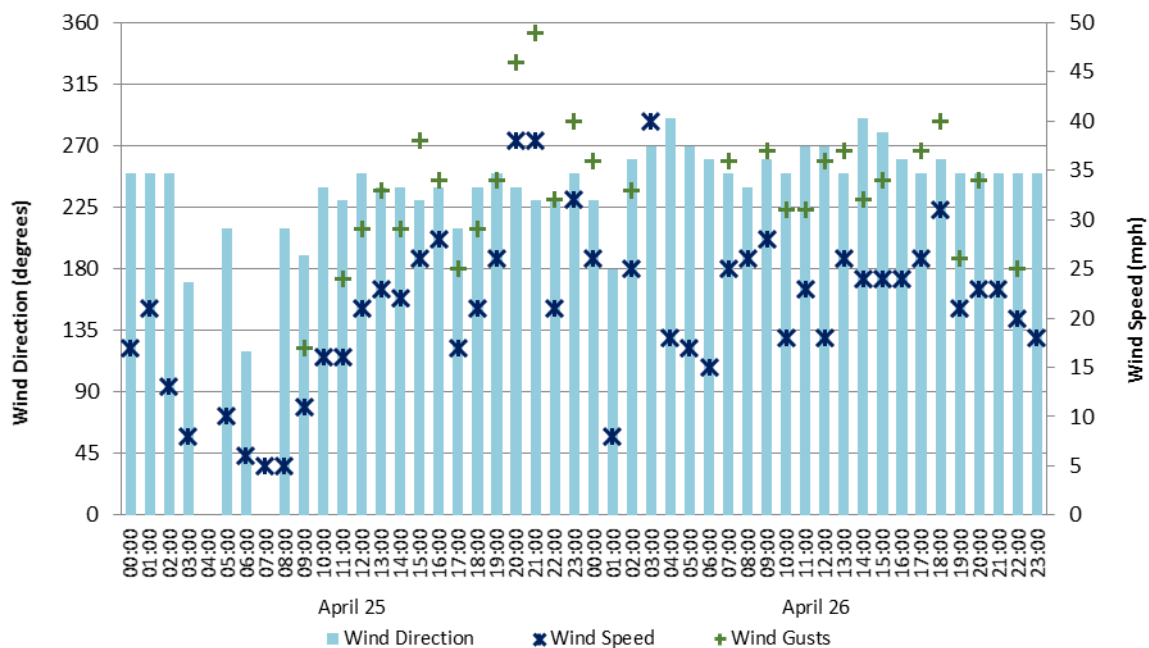


FIGURE B-3
EL CENTRO NAF (KNJK)
WIND SPEED, GUSTS & DIRECTION



Figs B-2 & B-3: Both the Imperial Airport and Naval Air Facility show winds increasing on April 25, 2014 with gusty winds continuing on April 26, 2014. Wind data from the NCEI QCLCD data bank

FIGURE B-4
BRAWLEY SDSU CENTER
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

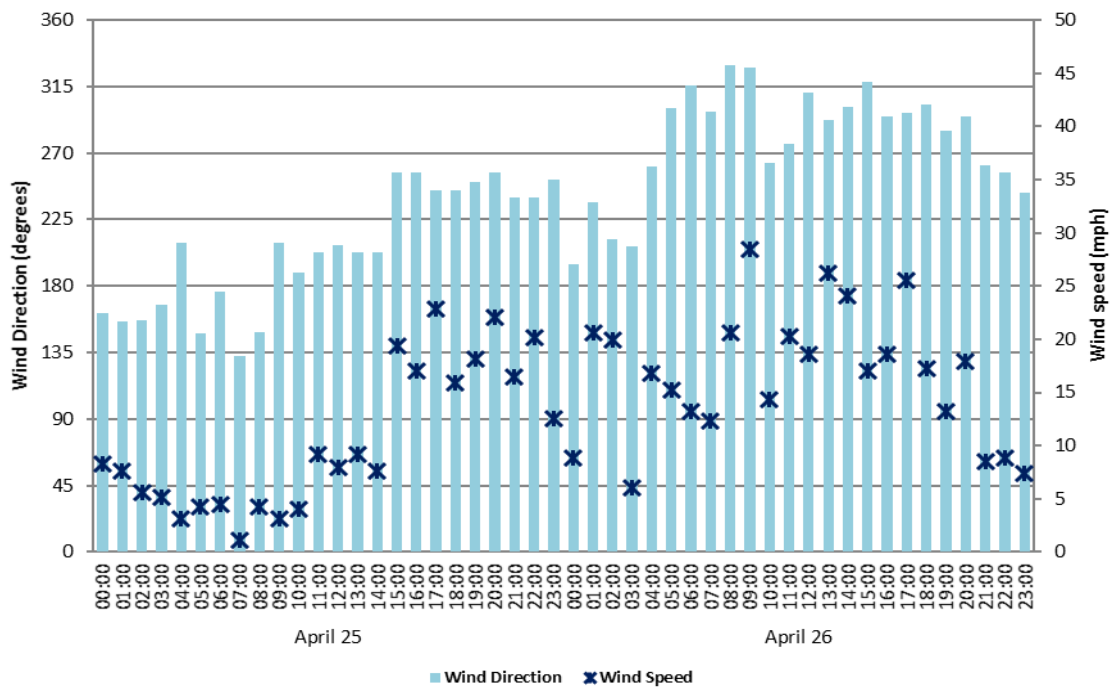
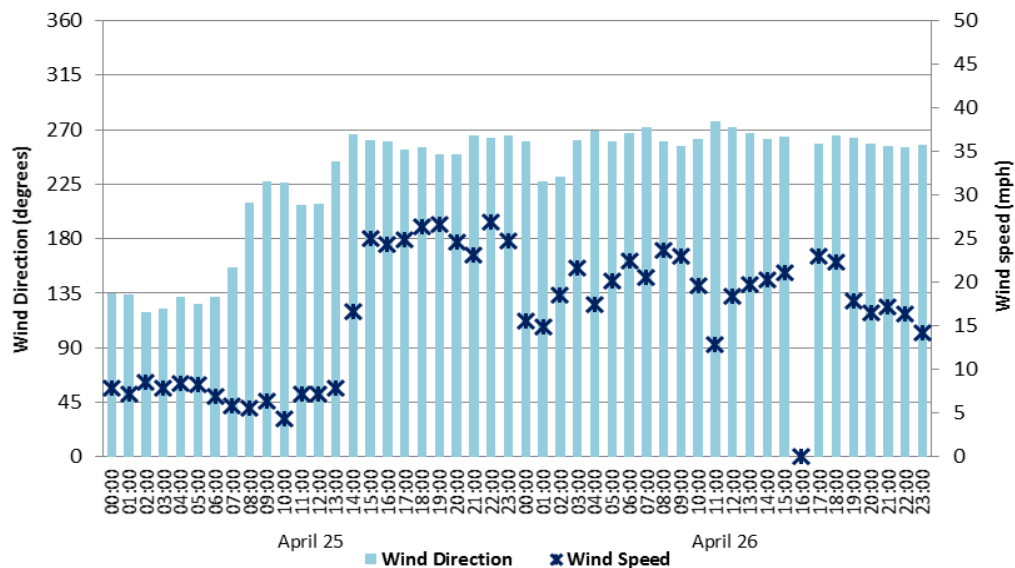


FIGURE B-5
NILAND WIND SPEED & GUSTS (AVERAGES) AND DIRECTION



Figs B-4 & B-5: The Brawley SDSU Center, located approximately 3 miles east and downwind of Brawley indicates wind increasing on April 25, 2014. Winds remained elevated through April 26, 2014. Niland shows a similar trend in wind speed. Wind data from the EPA's AQS system and University of Utah's Mesowest data bank

FIGURE B-6
WIND ROSE FOR APRIL 25, 2014 IMPERIAL AIRPORT

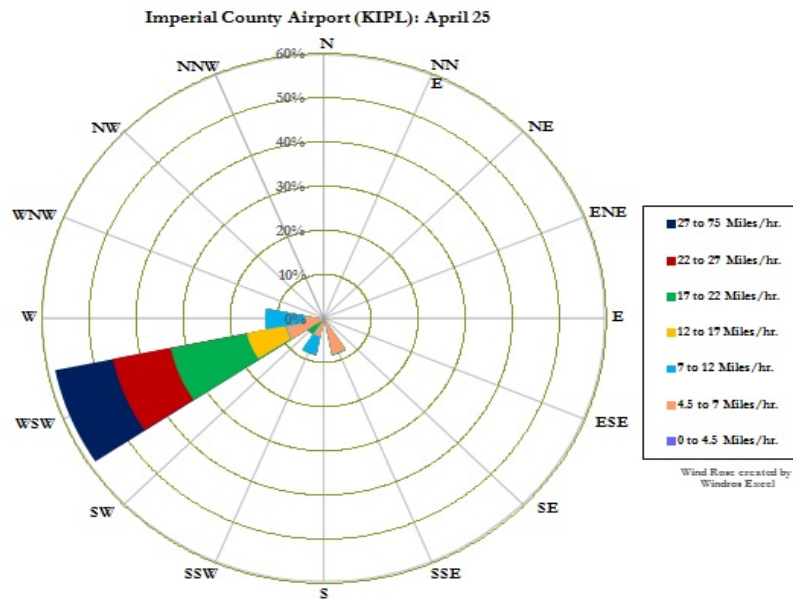
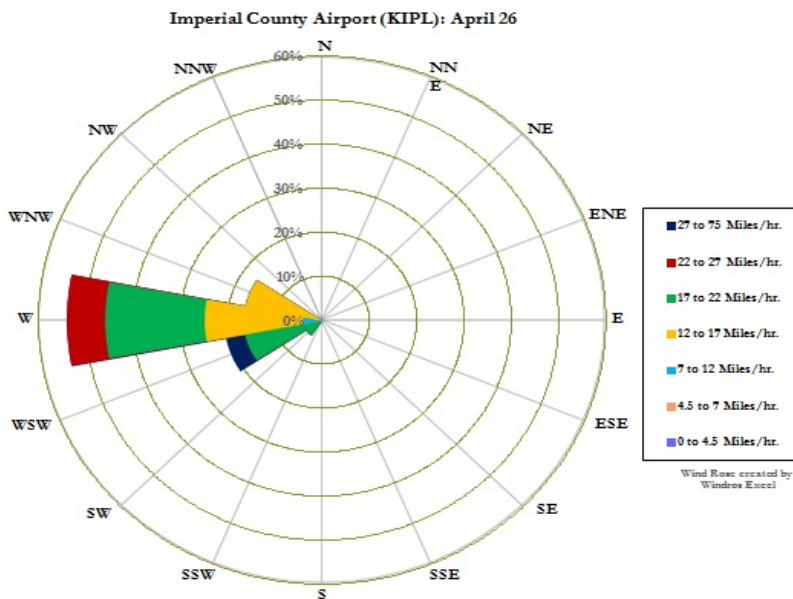


FIGURE B-7
WIND ROSE FOR APRIL 26, 2014 IMPERIAL AIRPORT



Figs B-6 & B-7: Wind data measured at Imperial County Airport indicates winds were WSW on April 25, 2014, then transitioned to W on April 26, 2014. This backs up the HYSPLIT trajectory that showed a slight shift during the two-day period. Wind data from the NCEI QCLCD data bank

FIGURE B-8
WIND ROSE FOR APRIL 25, 2014 EL CENTRO NAF

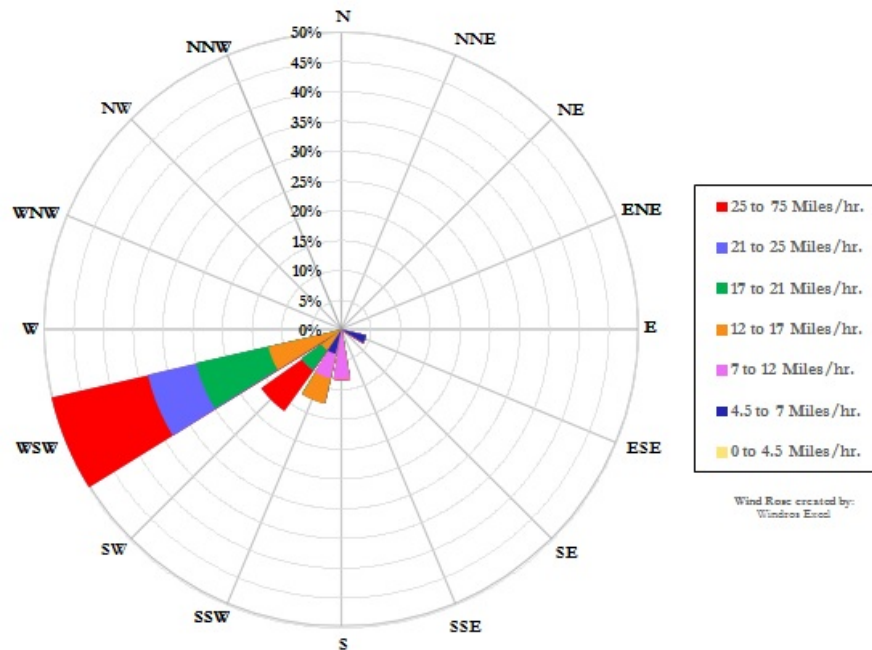
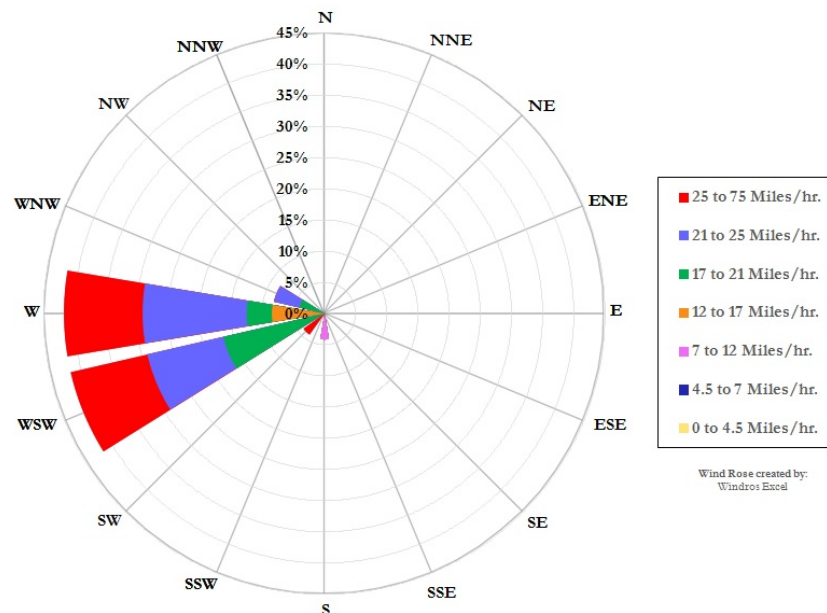


FIGURE B-9
WIND ROSE FOR APRIL 26, 2014 EL CENTRO NAF



Figs B-8 & B-9: Wind data measured at El Centro NAF shows winds were WSW on April 25, 2014 then transitioned to W and WSW on April 26, 2014. This backs up the HYSPLIT trajectory that showed a slight shift during the two-day period. Wind data from the NCEI QCLCD data bank

RIVERSIDE COUNTY STATIONS

FIGURE B-10
PALM SPRINGS AIRPORT (KPSP)
WIND SPEED, GUSTS & DIRECTION

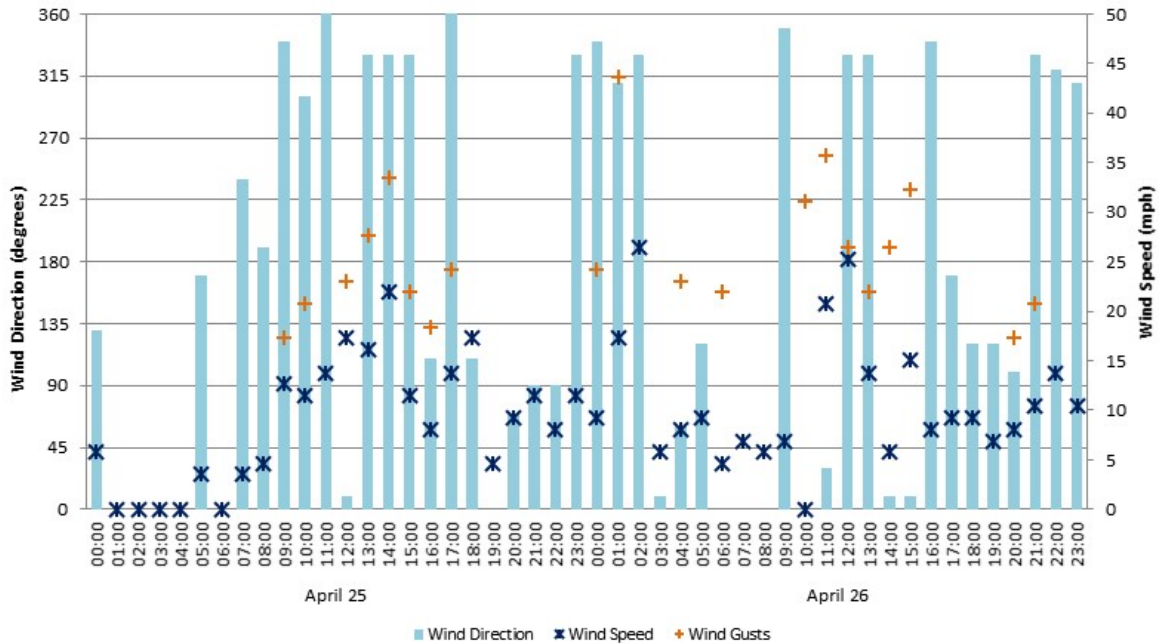
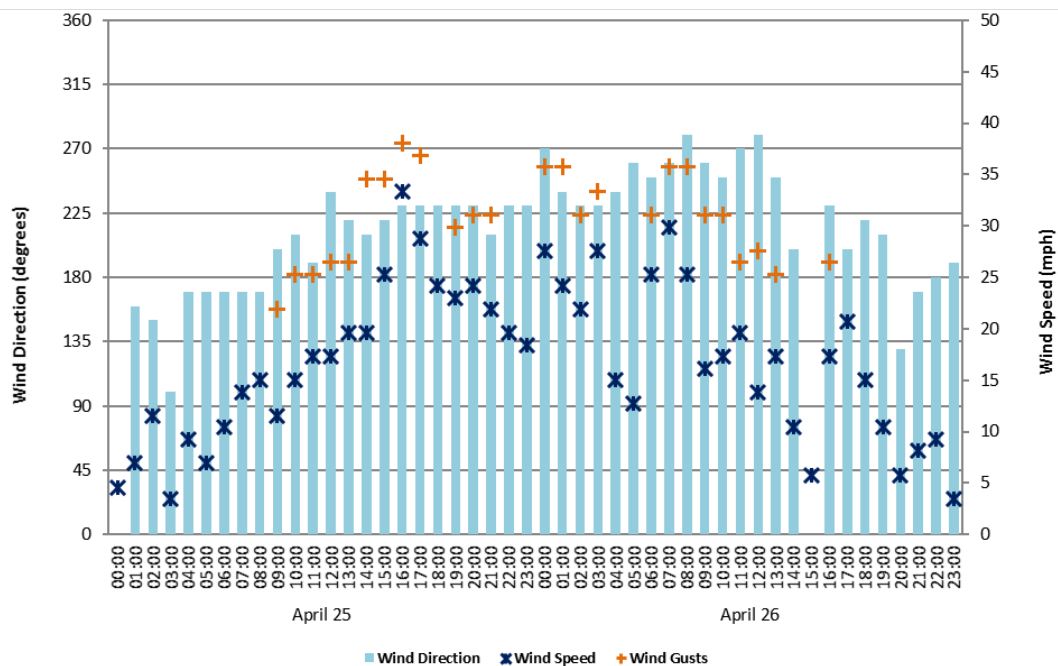
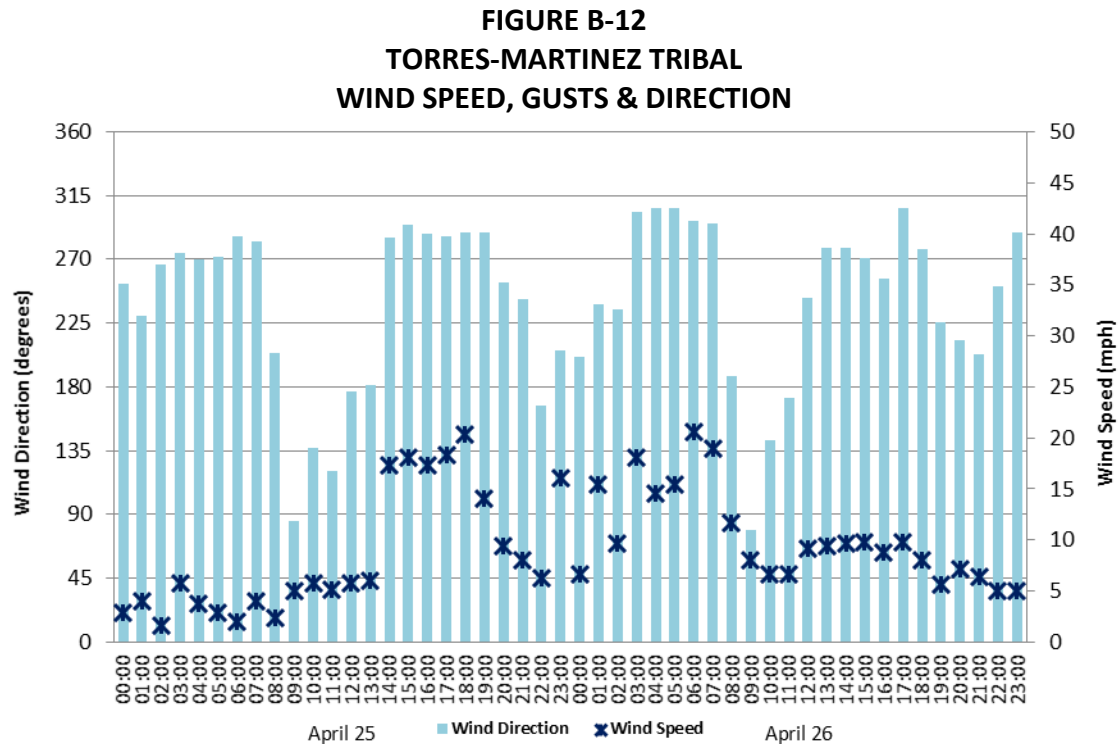


FIGURE B-11
BLYTHE AIRPORT (KBLH)
WIND SPEED, GUSTS & DIRECTION





Figs B-9 to B-12: The collection of sites from eastern Riverside County shows high winds impacted areas outside of the Imperial Valley. Palm Springs Airport and Torres-Martinez is to the northwest of Brawley. Blythe Airport is to the northeast. Wind data from the NCEI QCLCD data bank and the University of Utah's MesoWest data bank

ADDITIONAL STATIONS OUTSIDE OF IMPERIAL COUNTY

The following graphs provide evidence of the elevated wind speeds and confirm the prevailing wind direction at different sites outside Imperial and Riverside Counties. Yuma MCAS (**Figure B-13**) site is located in southwestern Arizona. **Figure B-14** is located in Mexicali, Mexico. The Campo Airfield is located in southeastern San Diego County. The Fish Creek Mountain site is located almost due west of Brawley near the Imperial-San Diego county borders. Data for these sites was collected from the NCEI's QCLCD data bank, University of Utah's MesoWest data bank, and the Weather Underground

FIGURE B-13
YUMA, ARIZONA MCAS (KNYL)
WIND SPEED, GUSTS & DIRECTION

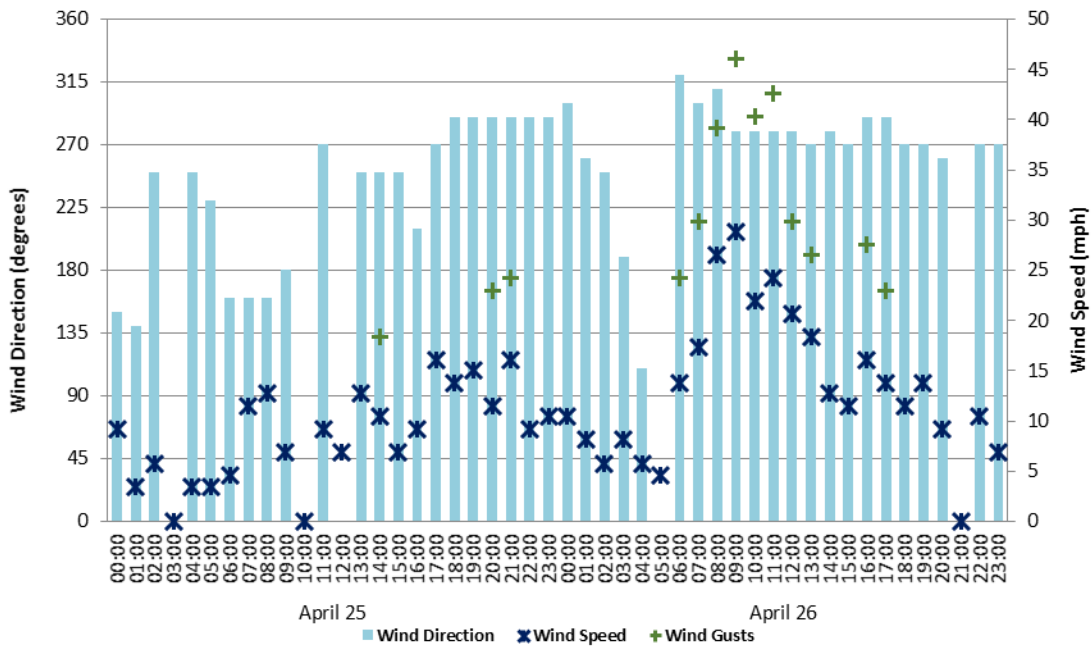


FIGURE B-14
MEXICALI (MEXICO) AIRPORT (MMML)
WIND SPEED, GUSTS & DIRECTION

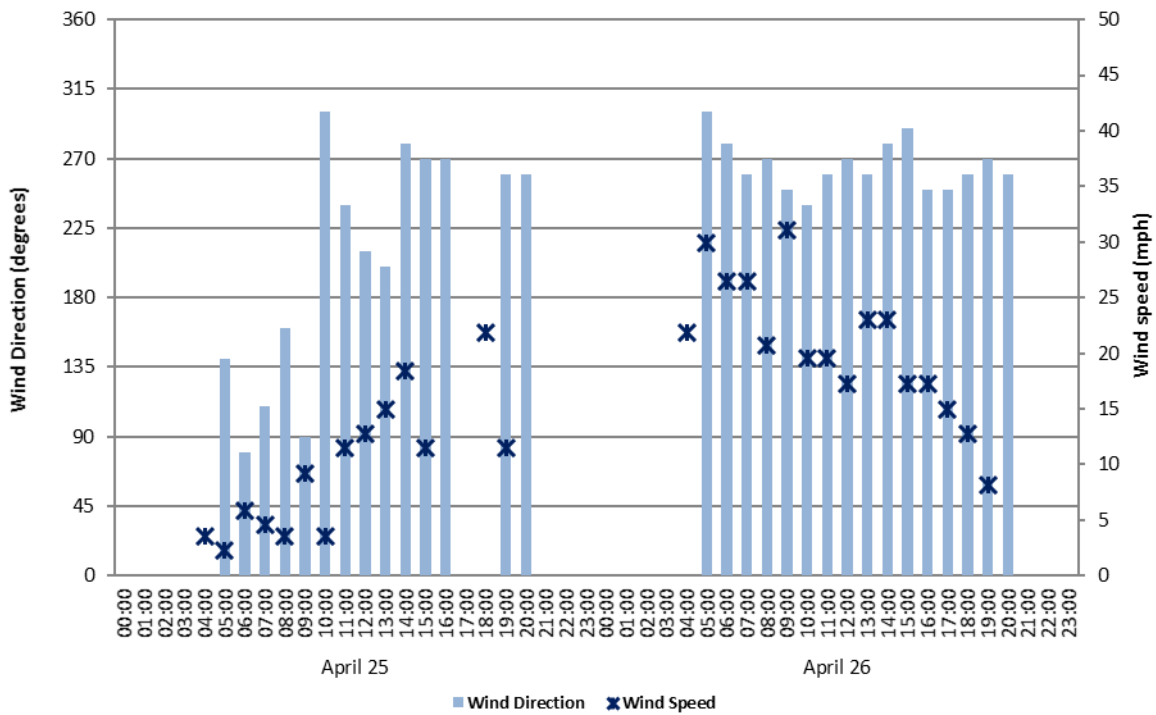


FIGURE B-15
FISH CREEK MOUNTAINS
WIND SPEED, GUSTS & DIRECTION

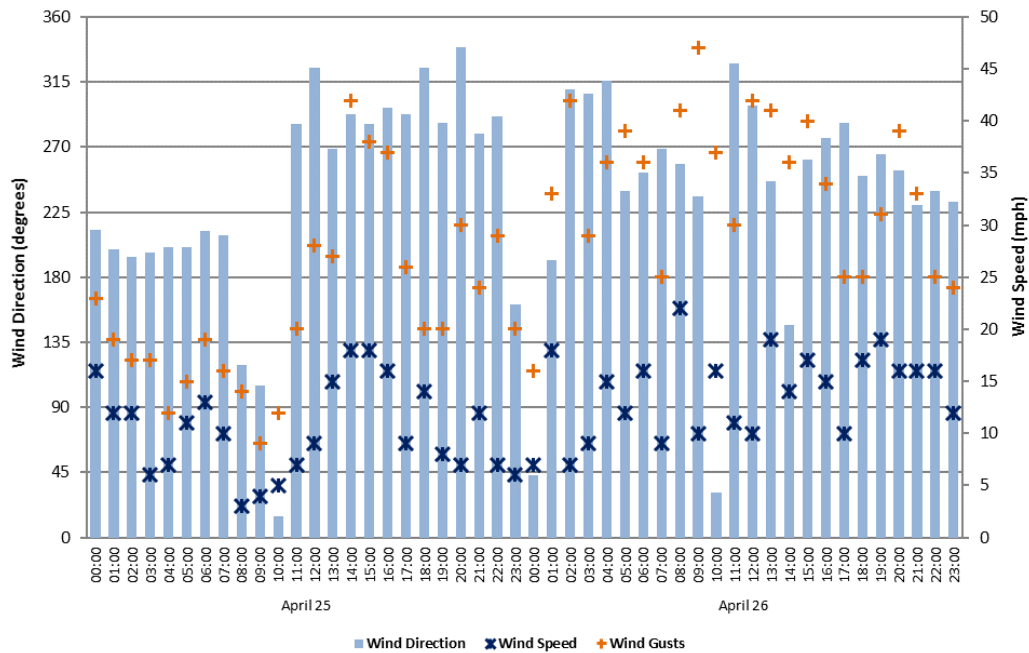


FIGURE B-16
CAMPO AIRFIELD
WIND SPEED, GUSTS & DIRECTION

